

Warm Up #10-4

1. Find the point-slope equation of the line tangent to  $f(x)$  at  $x = 1$ .

$$f(x) = 2x^2 + 7x - 15$$

2. What is the slope of the line perpendicular to the tangent?
3. Write the equation for this line:

Week 10 Classwork:

Warm up

Differentiate with p. 565, # 1&2

20C p. 571, # 1 - 4

20D p. 573, # 1 - 3

## HW Questions:

9) B = Boy eats lunch  
G = Girl eats lunch

Given  
 $P(B) = 0.5$     $P(G|B) = 0.9$   
 $P(G) = 0.6$

a)  $P(G \cap B)$   
 $= (0.9)(0.5)$   
 $= 0.45$

$$P(G|B) = \frac{P(G \cap B)}{P(B)}$$

$$0.9 = \frac{P(G \cap B)}{0.5}$$

b)  $P(B|G) = \frac{P(B \cap G)}{P(G)}$   
 $= \frac{0.45}{0.6}$

c)  $P(B \cup G) = 0.5 + 0.6 - 0.45$

=

5)

a)  $f(x) = 9x^2 + 6x + 1$

b)  $f'(x) = 18x + 6$

c)  $f'(-2) = 18(-2) + 6$   
 $= -36 + 6$   
 $= -30$

Classwork: 20D p. 575, # 11 - 16

HW: 20E p. 578, # 1

and 20F p. 581, # 1 & 2

(The normal line is  $\perp$  to the tangent)

\* Read P4 and work on your project!

Next Quiz: Tuesday, Nov. 14

Conditional Probability

Differential Calculus